

The Bureaucratising of Lesson Study: A Javanese Case

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Lesson study developed organically in Japan over a period of 140 years, whereas in Indonesia, lesson study was introduced as a top-down initiative. This research explores beyond general cultural differences by illustrating how the daily concerns of teachers and their social interactions differ in Japan and in the case of an Indonesian school, the situation in the latter influencing how the Indonesian teachers engage in lesson study. This paper demonstrates through this comparison of contexts in two countries, how the approaches to teaching and professional development are influenced by sociocultural factors that are embedded in the teachers' lives, which are often beyond the scope of professional development programs. The differences in responsibilities of teachers, the nature of collegiality, and the pedagogic strategies of mathematics teachers are discussed in order to illustrate the engagement and challenges of lesson study in an Indonesian school.

Keywords: professional development . Indonesia . Japan . sociocultural . lesson study

Introduction

Lesson study developed organically in Japan over a period of 140 years, and over the past two decades it has been introduced in various foreign countries as an effective model for professional development. In lesson study, "teachers collaboratively plan, observe, and analyze actual classroom lessons, drawing out implications both for the design of specific lessons and for teaching and learning more broadly" (Lewis, Perry, Hurd, & O'Connell, 2006, p. 273). One strength of lesson study over other forms of professional development is that it is based on a long-term continuous improvement model that focuses on student learning and improvement of teaching through collaborative activities (Matoba & Arani, 2005, p. 5). Another advantage of lesson study is its flexibility to function as a learning system that is embedded in local culture (Wolf & Akita, 2008).

Even within Japan, lesson study has evolved over the course of its history and has developed variations responding to changing needs and contexts. Sato (2008) warns of a danger in promoting lesson study abroad if it is seen as a systematic and uniform model of professional development, pointing out the importance of recognising its pluralistic and diverse nature.

According to Sato (2012), there are currently five modes of lesson study in Japan: 1) lesson study conducted by the Ministry of Education, Culture,

Sports, Science and Technology (MEXT) and the local boards of education in designated research schools; 2) lesson study conducted as in-house workshops on the initiative of schools; 3) lesson study conducted collaboratively with university researchers; 4) lesson study promoted by the teachers' union and voluntary teachers' study groups; and 5) lesson study conducted by progressive teachers and educational researchers. Even within these five modes, the form and the content of lesson study are not uniform.

As Shimahara (1998) points out, there is cultural variation in strategies for approaching professional development, reflecting the historical and social contexts. Based on the data collected in an ethnographic study, he describes the uniqueness of the Japanese model of professional development as "craft knowledge" based on "apprenticeship through which occupational practice from the past is perpetuated" (p. 451)¹. The teachers are collectively "committed to creating and regenerating craft knowledge of teaching" (p. 451), because Japanese teachers' activities are embedded in their lives and are organised under co-operative management, fostering inter-dependency. He states that this is in contrast with the individualistic model of professional development in the United States. Therefore, professional development, including lesson study, is possible in Japan since daily activities support "the culture of teaching by sharing ideas, skills, beliefs, and practical innovations" (p. 459). If this is the case, what would happen if lesson study were brought into a totally different context and into the lives of teachers in a foreign system?

Stigler and Hiebert (1999) point out that teaching is a cultural activity. Based on this recognition and their experience in Australia, Doig and Groves (2011) acknowledge the importance of taking cultural factors and assumptions into consideration when introducing lesson study abroad. The present research attempts to explore beyond general cultural differences by illustrating how the daily concerns of teachers and their social interactions differ between Japan and an Indonesian case school, the situation in the latter influencing how the Indonesian teachers engage in lesson study. Data are drawn from an ethnographic study in an Indonesian junior high school and extant literature on Japanese schools. There is an obvious limitation to this research since Indonesian data are drawn from a single case, from one school in a region of Java. Indonesia is a large country with a population of diverse ethnicities, and the situation in schools varies significantly across regions. Also, the descriptions of Japanese schools are limited to reflection on available literature. Thus, this study is not meant to generalise lesson study in Indonesia or Japan, but rather demonstrates, through a comparison of contexts in two countries, how approaches to teaching and professional development can be influenced by sociocultural factors that are embedded in the lives of teachers, which are often beyond the scope of professional development programs. The differences in responsibilities of teachers, the nature of collegiality, and the pedagogic strategies of mathematics teachers are themes that emerged from the research and these are discussed in order to illustrate the engagement and challenges of lesson study in Indonesia.

Research Methods

In order to describe the contextual differences between Indonesia and Japan, this study draws on two data sources. Primary data collected from the fieldwork is used to present a Javanese setting. This is augmented by findings from antecedent research, which refer to the Indonesian context more generally. Secondary sources and research are used to describe the broader Japanese context.

In order to investigate daily teaching and educational activities of Indonesian teachers, an ethnographic approach was used for the data collection. The target junior high school, Taman Sari (pseudonym), had been participating in the lesson study program since a lesson study project had started in 2006, supported by the Japan International Cooperation Agency (JICA) and the Ministry of National Education (MONE), Republic of Indonesia. In Indonesia, lesson study was being introduced as a joint effort by the Indonesian and Japanese governments to improve the quality of education. According to MONE (2007, p. 120), lesson study in Indonesia is widely interpreted as a cycle of: "Plan (making a student-centred lesson plan); Do (carrying out instructional activities or 'open class' according to the plan); See ('reflection' on the effectiveness of instructional activities to revise the activities)".

Taman Sari was selected as one of the pilot schools and received support from the JICA experts and a local university. At the time of this study, Taman Sari had been implementing lesson study for three years, with strong commitment from the headteacher and the curriculum head. Taman Sari was selected as the target for this study based on the criterion that the school had sufficient knowledge and experience of lesson study. There were still only a few schools that had implemented lesson study as a whole school initiative and were employing it on a regular basis, since the majority of teachers participated in lesson study in the form of workshops for regional subject study groups, *Musyawarah Guru Mata Pelajaran* (MGMP), for mathematics and science. The participants in the study were 51 teachers and the headteacher. Those who were actively involved in lesson study were mainly the teachers of four subject areas—mathematics, science, Indonesian, and English—together with several teachers with special responsibility for the lesson study program. In the school, the teachers of these four subjects formed school-based subject study groups called *Musyawarah Guru Mata Pelajaran Sekolah* (MGMPS), and lesson study was mostly implemented as the part of these groups' activities.

The researcher made a total of 63 school visits during the seven months between December 2009 and June 2010. During most visits, the researcher spent the school day as a participant observer following the activities of teachers. Daily observations and conversations were recorded in the form of field notes. More formal interviews were conducted with seven teachers regarding their involvement in lesson study. A survey regarding their views on teaching and their experience of lesson study was administered once towards the end of the fieldwork period in an attempt to gain an overall understanding of teachers' views of teaching in general and of lesson study in particular.

The data analysis was loosely guided by the constant comparison approach of grounded theory (Glaser & Strauss, 1967). This approach to analysis is sociological and comparative, and is concerned with continuities and discontinuities in terms of the social relations and cultural practices obtaining in different settings (Dowling, 2009). The process of analysis first involved immersion in the data—field notes, interview transcripts, and survey responses from the Indonesian school, as well as secondary data on the Japanese setting—in order to identify continuities and discontinuities. Subsequently, these data were organised using three aspects or dimensions of the settings: teachers' responsibilities, the nature of collegiality, and pedagogic strategies. The level of analysis that was selected was that which enabled the greatest clarity of description of the sociocultural natures of the settings.

Context of Taman Sari

Taman Sari, the target of this study, is located in the Menten (pseudonym) region of Java, in the province of Yogyakarta, not far from the city of Yogyakarta. It is one of the most popular schools in the area because of its high ranking in the league table of performances in the national examination (UN) results. Being the largest public school in the sub-district of Purinegara (pseudonym), it hosts around 700 students and 51 teachers. The privileged status of this school is affirmed by the award of the title of "national standard school", which is given to schools that meet the requirements of the government based on teacher qualifications, school facilities, and high academic achievements.

The biggest concern for the school, teachers, students, and parents is the national examination (UN) held at the end of the ninth grade. Junior high school students are tested for mathematics, science, Indonesian and English and the result determines their graduation, and also their prospect of entering competitive high schools. The league table of students' examination performance is an important determinant for schools' evaluations and reputations. Because of this, daily classroom teaching focuses on acquiring knowledge and skills to pass the UN, and lecturing, drill, and rote learning are widely used methods in classrooms. In addition, Taman Sari was hosting extra classes outside school hours to prepare for the UN. An additional fee was collected from the parents of students attending the extra classes.

Under these circumstances, with a strong examination orientation, it was no coincidence that lesson study focused on the four subject areas of the UN. The competency of teachers was seen to be related to their skills in preparing students to pass the UN. The teachers employed teacher-centred pedagogies, mainly going over textbook content and asking the students to work individually on workbooks. The teachers used daily quizzes and the school conducted occasional mock examinations so that students would be accustomed to taking examinations.

In lesson study, many teachers incorporated group work and hands-on activities aimed at active student participation, which was not common in daily teaching. Whilst the teachers rarely prepared for daily lessons, they prepared extensively for lesson study. Therefore, while lesson study encouraged the teachers to prepare more fully and to incorporate new methods in their teaching, the teachers used these methods exclusively in lesson study so that the initiative had, in effect, little relevance to daily lessons.

Contextual Differences Between Japan and Taman Sari

In order to understand the gap between the Indonesian teachers' practice in lesson study and their daily lessons, I will first explore some contextual differences between Japan and the Indonesian school.

Professional Responsibilities of Teachers

The first issue is related to what constitutes teachers' work and how teachers are accountable for their professional role. In daily activities, teachers cope with different demands that are placed on them, and set priorities. Whilst the image of the teacher in many societies focuses on teaching quality, the role of Japanese teachers is much more diverse since Japanese teachers consider the holistic development of students as the most important goal in education (Ito, 1994). Iwata (2008) describes how Japanese teachers are not

only expected to be good teachers but also to be moral and spiritual role models, attributing this to the master (師) in the Confucian tradition setting an example.

Rohlen and LeTendre (1998) suggest that the word *shido*, which literally means guidance, represents the diversity of a teacher's responsibility in Japanese junior high schools that is far more comprehensive than just teaching. Junior high school teachers are responsible for learning guidance (*gakushu shido*), student guidance (*seito shido*), and career guidance (*shinro shido*), and *shido* covers almost any activity regarded as educational (Shimizu, 2002). In order to provide "guidance" in almost every aspect of students' lives, relationship building with students is a crucial part of their professional concern, and the conversation among teachers also centres on the disciplinary problems concerning certain students (Fujita, Yufu, Sakai, & Akiba, 1995). Japanese teachers share the responsibility for students and therefore employ personalised strategies to build relationships both inside and outside the classrooms. In particular, Japanese teachers spend considerable amounts of time with their students outside of classroom teaching in activities ranging from eating lunch with the students and cleaning the classroom to supervising extra-curricular activities (MEXT, 2007).

This tendency of Japanese teachers to prioritise the work around students has both negative and positive consequences. Research suggests that the nature of Japanese teachers' wide role strengthens the autonomy of teachers, since teachers inevitably make their own decisions in various settings relating to the interactions with students outside lessons (Fujita et al., 1995). This is also reflected in their choice of pedagogy in lessons, where teachers employ various methods to facilitate understanding based on students' interests and to encourage students' engagement. The assignments given to students come back with personalised comments, and some teachers require students to write diaries and give daily feedback (Fujita et al., 1995). However, teachers are inclined to prioritise the responsibility of student guidance over other responsibilities, so that some teachers acknowledge they have no time for lesson preparation or for their professional development (Benesse Corporation, 2009). The research conducted by Fujita et al. (1995) also suggests that teachers are motivated by activities outside lessons and their personal relationship with students, but there is often a tension between this and their academic and professional development responsibilities.

In Taman Sari, the role of teachers was much more clearly defined and centred on achieving academic targets. The teachers identified their role as lesson delivery, focusing on the national examination preparation, in much narrower terms when compared with teachers in the Japanese setting. Unlike Japanese teachers, the work of these Indonesian teachers was supported by school counsellors, resource persons for extra-curricular activities and boy scouts, administrative staff, cleaning staff, and security guards. The environment of Taman Sari was very relaxed and the conversation in the staff room was communal and generally unrelated to their professional responsibilities, including family matters, planning a vacation, and general gossip. However, their work responding to bureaucratic accountability was prioritised and separated from friendly interactions.

Despite recent efforts aimed at decentralisation, the Indonesian education system is still controlled by the central government. Teachers see themselves as followers of the state authority and they identify strongly with their civil servant status, *Pegawai Negeri Sipil* (PNS). Generally, the teachers see their role as delegates of state authority to manage educational activities.

Bjork (2005) points out the bureaucratic nature of Indonesian teachers and argues that the teachers are valued for their loyalty and obedience to the state, while improvement in the process of teaching and learning is not rewarded.

Due to its bureaucratic nature, teachers' work is closely regulated by top-down authorisation and is controlled through requirements for documentation and output standards. In Taman Sari, almost all documents that went out from the school—from student report cards, letters to parents, teachers' lesson plans, to the reports on individual teachers submitted to the education office—required the headteacher's signature. Even for in-house training activities such as lesson study, the invitation letters were sent out with the headteacher's signature. The teachers called these administrative tasks *tugas* or "duties" and took these duties quite seriously.

The bureaucratic nature of Indonesian teachers' work was reflected in the daily interactions of teachers and their lessons. Teachers understand their responsibility to be the presentation of a standard curriculum with a strong emphasis on the UN preparation (Tanaka, 2011). While there was little control of the process of lessons or pedagogy, the output expectations were regulated by the nationwide standardised examination (UN) that is a prerequisite for graduation. Since Taman Sari was a high performing school, the school only took those students who had performed well in the elementary school graduation examinations. In order to maintain its privileged status, the school had an incentive to maintain a high rank in the league table of results for the UN.

Because of the strong examination orientation, the Indonesian teachers regarded their responsibility not only to be presenters of the curriculum but also to be evaluators. Most teachers maintained a distance from students and acted as the authority inside the classrooms. The teachers in Taman Sari generally did not know the names of their students and often used the attendance number to call on students. It was also rare for the teachers to provide feedback or grade students' work other than in the examinations; the teachers simply asking students to exchange their answer sheets for grading and then recording the resulting scores read out by the students. Maulana, Opdenakker, Brok, and Bosker (2011) describe this phenomenon as "Teachers mostly maintain a distance, physically and psychologically, from their students, implicitly showing that they are in charge of the learning process" (p. 45).

Thus, in terms of their professional responsibilities, teachers in Taman Sari were accountable for fulfilling bureaucratic obligations, which put emphasis on output and administrative tasks. However, these tasks were accomplished only to fulfil the requirements and were seen as having little relevance to daily practices, which resulted in some conflict. Lesson plans, for example, had to be filed for the whole year in advance, but most teachers admitted that they never referred to their lesson plans when implementing their lessons.

Nature of Collegiality

The second theme is related to the nature of teachers' collegiality. Many American researchers consider the nurturing of collegiality to produce a collective and continuous effort amongst teachers to improve daily lessons to be a strength of lesson study (Stigler & Hiebert, 1999). While Japanese teachers work closely with students, interaction among teachers is not as intense. The nature of their exchange is limited to professional responsibilities, and while they cooperate closely to support school activities, they are careful not to intervene in one another's classrooms.

Kurebayashi (2007) defines this phenomenon as "limited collegiality" (p. 177), using an example based on research by Fujita et al. (2003) that Japanese teachers are less willing to exchange their teaching or class management ideas with other teachers than teachers in China or the UK would be.

Despite the tendency for non-intervention, "teaching is considered as a collaborative process and improved through that process" and teachers are organised to discuss and support one another in the staff room and in meetings (Shimahara, 1998, p. 455). Senior members are respected for their pedagogical experience and knowledge and act as mentors and advisers for junior teachers. "Lesson study enabled educators to observe the progress of pupils while improving their teaching skills. ... Improvements in teaching transpired naturally through regular lesson study" (Arani, Fukaya, & Lassegard, 2010, p. 182). While their relationship is restricted to professional responsibilities and does not extend to the personal (Kurebayashi, 2007), the structure of the teacher community is relatively flat (Mimizuka, 1993) and teachers are able to discuss their professional concerns relatively openly.

In contrast to Japanese teachers' limited collegiality, the collegiality of the teachers in Taman Sari extended well beyond their professional responsibilities and the sphere of the workplace. The relationships among the teachers were much more intense and personal. The vice-headteacher called the community of teachers a "family" and explained that "teachers get together for sadness or happiness" (Field note, March 12, 2010). When one of the teachers was getting married, for example, the school schedule was cut short so that other teachers could attend the wedding.

The "family", however, also symbolises the paternalistic and hierarchical nature of the community, which provides security for its members under the patronage of leaders. The leaders are called father (*Bapak*) or mother (*Ibu*) and the members or "children" are expected to abide by the rulings of their "parents" (Irawanto, 2011). This paternalistic leadership is often referred as *bapakism* which originated in the era of the Suharto dictatorship; the leader is "protected from criticism, and it is considered morally improper to disagree with even the most unwise decisions" (Irawanto, Ramsey, & Ryan, 2011, p. 134). This characteristic of paternalism and obedience to the leaders is especially strong in Javanese culture, since Javanese are taught "self-control" and "self-sacrifice" to work for the interest of the community (Shiraishi, 1997). Because of this, Javanese people often do not state explicitly what they think, especially when they think it may cause trouble for themselves or for others (Sutarto, 2006).

These communal values to maintain harmony and solidarity have apparently permeated the teachers' work in Taman Sari. The teachers were organised under the assigned groups (called *teamwork*) to facilitate the implementation of school programs funded by the education office. Since most tasks—from supervising students for examinations, implementing practice tests, writing examination questions, to making program reports—were funded by the education office and teachers were compensated financially for their work, teamwork was a system to ensure the fair distribution of workload and accompanying benefits. Teamwork promoted cooperation under the system of hierarchy and seniority, but it did not induce open discussion or democratic decision-making. For instance, when the teachers worked on the school programs, there was no real discussion of who should work on which tasks. Instead the division of tasks was almost automatically determined based on the existing social hierarchy. Generally, the younger teachers had a greater workload than the senior teachers. They were given tasks as treasurers or were asked to make program reports, with their workload compensated by an additional honorarium.

Since the teachers associated their professional responsibility with the state set curriculum, the teachers preferred to work with the teachers of the same subject, where they could share subject knowledge and study the subject curriculum. Because of this, while the majority of in-house lesson study in Japan is based on a school-wide goal aiming for students' development, and is a cross-subject initiative (Fernandez & Yoshida, 2004), the lesson study activities in Taman Sari were conducted mainly by the school-based subject groups (MGMPS). For instance, when a mathematics teacher did an open class, generally other mathematics teachers were invited to observe. In MGMPS, the discussion centred on the effectiveness of lessons in relation to curriculum and the format of lesson plans but rarely on actual practices. This is because the teachers were accustomed to be assessed on the basis of these criteria. Since it was not a shared interest, the teachers rarely discussed lessons or students in the staff room. Teaching was considered to be an individual responsibility and the teachers may have even been in a competitive relationship regarding promotion.

Pedagogic Strategies of Mathematics Teachers

So far, the contextual differences in Japan and Taman Sari have been explored in terms of professional responsibilities and the nature of collegiality. The third issue is the difference in the pedagogic strategies and how the teachers use them in their lessons. Pedagogic choices are made to serve daily teaching needs and to regulate classroom interactions. In this section, the discussion is mainly about mathematics lessons, but most features of lessons are also common to other subjects.

Japanese teachers employ different pedagogic strategies to support students' learning with personalised care. Stigler and Hiebert (1999, p. 27) refer to Japanese mathematics teaching as "structured problem solving" where students are encouraged to take an active role and find their own ways of problem solving. For this, the teachers often incorporate strategies such as the use of teaching aids to attract the interest of students in the topic (Tsubota, 2003). These strategies are described as *shikake* (strategy) and are essential in lesson design in order to realise meaningful learning experiences for students (Kage, 2008). In their lesson plans, Japanese teachers often include the anticipated answers from students (Fernandez & Yoshida, 2004). Teachers also try to motivate students not only by marking their assignments, but also by providing personal feedback and encouragement (Fujita et al., 1995). This is made possible by teachers working closely with students and so understanding their needs and personalities. In summary, Japanese teachers are accountable for their pedagogic skills to motivate and encourage students intrinsically. Considering the great variation in students' answers, teachers regard their own expertise to be achieved through the accumulation of experiences, and consider their engagement in professional development to be continuous.

Compared with Japanese teachers, the role of teachers in Taman Sari was limited to the presentation of the curriculum, and they were accountable with respect to UN examination results but they were not necessarily accountable for student learning. Senior and experienced teachers were assigned to teach the ninth grade, focusing on examination preparation. The curriculum head and mathematics teacher, Mr Umar, explained that teaching the ninth grade was different from other grades since there was very little material to teach. The majority of material to be taught was in the eighth grade, but in the ninth grade, "lots of it is to answer exercises". Thus, those teachers of UN subjects who taught ninth grade employed rote learning and drill effectively to ensure the acquisition of the

curriculum content. Even in the seventh and eighth grades, the extensive examination orientation encouraged teachers towards a systematic presentation of the curriculum material. For example, Mrs Gadis, a mathematics teacher in her forties, opened her lesson by writing on the whiteboard "Null set $\rightarrow \{ \}$ and 0". She then explained the difference between $\{ \}$ and $\{0\}$ and asked the students to "... give me examples of these" (Field note, January 15, 2010).

This focus on examinations certainly influenced how the teachers engaged with the students. While Japanese teachers work closely with their students, Taman Sari teachers maintained some distance from students in order to act as regulators and evaluators. Since the professional concern of teachers emphasised success in examinations, the teachers regulated students with minimal individual interactions and employed a collective approach, such as a didactic style lectures and rote learning. To equip students with test-taking skills, the teachers aimed for students to solve problems individually and unaided. Feedback to the students was provided in the form of scores for daily quizzes and exams. The teachers considered individual differences between students as natural or even as obstacles beyond their control. Most teachers did not get involved with disciplinary issues unless they seriously disturbed a lesson. As long as a class was generally following the lesson, it was natural that some students would not be able to follow it. When students lacked concentration or engagement, the teachers often attributed this to external factors, which the students themselves were responsible for overcoming.

Rather than employing pedagogic skills to engage students, the teachers in Taman Sari encouraged the students through competition and rewards. The teachers often promoted competition among students to speak up in the class by giving extra points to be added in the examination. The school also provided monetary rewards to the best three students of each grade in the semester examination results. On the same note, when the students failed in examinations, their names were posted in the hallway as a list of students who needed to take remedial lessons. Their examination results were also listed as a league table from the top to the last one in a spread sheet and attached to their report card. The teachers said presenting the league table of students' grades helped to motivate students. This also signified that acquisition of learning was up to an individual student. Because the professional responsibility of Taman Sari teachers did not extend to facilitating learning, they were not held responsible for improving pedagogic skills. The teachers focused on knowledge transfer and test-taking skills—student acquisition of the curriculum—to ensure the achievement of standards.

Lesson Study

Thus far, the differences in responsibilities of teachers, the nature of collegiality, and the pedagogic strategies of mathematics teachers have been explored. As Shimahara (1998) pointed out, the sociocultural contexts surrounding Japanese teachers support "the culture of teaching by sharing ideas, skills, beliefs, and practical innovations" (p. 459). This puts emphasis on the holistic development of students, and values the pedagogical experiences of teachers, while the collaborative learning of teachers is facilitated through practices such as lesson study. On the other hand, the teachers in Taman Sari were occupied in their daily activities responding to bureaucratic accountability to meet the administrative requirements and achievement targets. Their responsibilities to students were limited to

curriculum acquisition, and the teachers prioritised curriculum presentation and examination preparation in their lessons. Also, collegiality was contextualised within the hierarchical system, which protected the interests of the teachers' community and ensured efficiency in cooperation, but had little relevance to teaching practices and experiences in the classrooms. In these contexts, lesson study was introduced to Taman Sari.

Taman Sari Lesson Study

In this section, I will explore how these contextual differences underlie the nature of engagement in lesson study by the teachers of Taman Sari. Data regarding the lesson study activities (obtained from field notes and lesson study records kept by the school), the results of a survey, and teacher interviews will be drawn on to depict these differences.

In Taman Sari, lesson study functioned to formalise the processes of lesson planning and implementation, which were then evaluated by the observers. The vice-headteacher Mr Beni summarised the benefits of lesson study in Taman Sari, as teachers planning and preparing better because "there is an evaluation on how the class went and what students lacked caused by the teacher's lack of preparation or insufficient mastery of material". In fact, to facilitate the recording of observations, an observation sheet was used which contained the following questions:

1. Were students learning the lesson topic at the time?
2. Who were the students who were not learning the lesson at the time?
3. Why do you think these students were not learning at the time?
4. To enable students to learn, in what way and what tools were used by the model teacher? Was it working?

To respond to these criteria of evaluation, the model teacher designed lessons that included hands-on tools, the students were formed into groups, and student participation was encouraged through activities and presentation. The following is an excerpt from a field note taken during the introduction to the mathematics open class conducted by Mrs Arum on February 19, 2010.

In the open class, the seating position was changed from the common classroom style and students were put into groups of mixed gender (recommended in lesson study activities). Both the teacher and students were in the classroom when the bell rang. The topic was nets of the cube. The teacher distributed one cube made of paper per group and asked the students to break it down using a cutter in order to understand the shape of net for a cube. After the students have finished opening the cubes, she showed the variation in shapes by comparing the nets made by different groups. Then she wrote "net of the cube" on the white board. When she finished this, Mrs Arum distributed two-page worksheets and a large blue sheet, glue, and a plastic bag containing many square shapes to each group. Mrs Arum did not give instructions what to do with them. One boy asked her what to do with the squares and she simply said, "Read the worksheet". The students were supposed to make different shapes of nets for cubes by gluing the shapes onto the blue paper.

Lesson study in Taman Sari encouraged the teachers to adapt new protocols that were unfamiliar to the teachers, and provided an opportunity to experiment with new methods and pedagogies. Consequently it brought changes in the sequence of lessons, the teaching materials used, and the pedagogy incorporated, as described in Table 1.

While lesson study encouraged changes in the practice of teachers during open lessons, the underlying norms relating to the general

responsibilities of teachers and social interactions remained the same. The gap between the daily contexts and the engagement in lesson study will be discussed in the following section.

Table 1
Comparison of Daily Lessons and Open Classes in Taman Sari

	Daily lesson	Open class
Target	Passing the UN	Activating students
Tasks	Listening and exercise solving	Listening, group work, and presentation
Methods	Lecture, rote learning, and drill	Hands-on activities and group work to motivate students' involvement
Preparation	None or minimum	Extensive
Teaching material	Textbook and workbook	Worksheets and teaching aids
Teacher's main role	Curriculum presentation and evaluator	Providing clear instructions for hands-on activities
Students' main role	Recipients	Some kind of student involvement
Student-student relationship	Competitive	Co-operative
Bureaucratic control	Focus on the output	Process is observed and evaluated
Evaluation	The result of tests	Comments by the observers
Understanding	Collective	Collective

Target of In-service Training

While the teachers in Taman Sari used the lesson study opportunity to experiment with new tools and pedagogies, this was aimed at satisfying the evaluation criteria of another set of bureaucratic requirements. The formalistic and evaluative nature of lesson study resonates with the nature of in-service education generally in Indonesia. Professional development programs are commonly provided in the guise of formal training or workshops, and in-house training is still uncommon. Also, unlike Japan a mentoring system among teachers does not exist. It is rare for the teachers to get feedback on their teaching except for an occasional evaluation by school supervisors. A vice-headteacher commented that "when a school supervisor observes classes, it determines teachers' careers. So teachers feel pressure" (Interview, June 12, 2010).

For lesson study, the teachers also feel under pressure to perform well. For example, one teacher wrote in the survey "With lesson study, teachers are challenged and forced to learn, to be open-minded, and to improve themselves", while others made similar comments. However, there were teachers who acknowledged that "Those teachers who are not good are forced to perform optimally (in lesson study), but they do not do that everyday". Under this circumstance, it is understandable how lesson study was also formalised and treated as an evaluation that had little linkage to daily teaching; it was constituted as a bureaucratic responsibility that was limited to the open lesson context.

This formalistic and evaluative nature of lesson study was revealed in the comments made in the reflection discussion. The teachers often made comments on planning and preparation, especially on administrative matters. To ensure the proper implementation of lesson study, these administrative matters were important. The teachers were expected to make lesson plans, student worksheets, seating charts, and observation sheets. Since the teachers did not know the names of students, the observers needed nametags and seating charts to identify the students for discussion. The deficiencies in these administrative tools were immediately pointed out: as Mrs Risma said, "There should be a seating chart available for the observers" and Mrs Fima "The nametags (that students wore around their necks) should be worn on their backs so they are visible (to the observers)".

Teacher-centred Pedagogy

Based on the survey, several teachers commented on the benefit of lesson study as "perfection of lesson plans" and "perfection of teaching method". This suggests that the teachers believed that effective design and preparation are the keys to a successful lesson. An impact of the examination orientation was that the teachers focused on the attainment of targets in their lessons and employed teacher-centred pedagogy to manage students' learning. In lesson plans, the teachers included competency standards and indicators of evaluation from the curriculum. While the teachers incorporated activities and encouraged student participation in lesson study, the aim of tasks was to derive correct answers and was rarely exploratory. For example, in Mrs Arum's open lesson, students were supposed to make as many shapes of nets as possible, while in Mrs Hani's open lesson students were asked to find the circumference of a trapezium. The observers' comments in the reflection mirrored the target orientation, "The target was achieved since the students were making at least eight shapes [of nets]" (Field note, February 19, 2010) and "90% were studying" (Field note, May 30, 2010).

Since the teachers' focus was on the target, they did not feel the need to adjust to the conditions of the students or interpret their learning processes. There was evidence that, despite the introduction of hands-on activities and group working, the teachers retained their way of one-way teaching and reliance on written instructions. For example, in the previous excerpt from Mrs Arum's open class, she did not instruct students what to do after handing out tools and a worksheet to the students. When a student asked her a question, she simply said "Read the instruction". Thus, the teacher's role remained as an instructor to lead to correct solutions rather than to facilitate active inquiry.

Consequently, there was a tendency for the teachers to treat the components of lessons as individual factors rather than linking them to pedagogical practices. For example, Mrs Risma (a Social Science teacher) said, "The students were enthusiastic to follow the lesson. The methods used were interesting, that made mathematics fun and not scary" and Mrs Fima noted, "The children were enjoying making nets of cubes. Need additional methods such as paper puzzle, and other learning resources". These experimental methods became an end in themselves and little analysis was done regarding pedagogical meaning.

Students' Participation and Class Management

For the teachers in Taman Sari, class management was an important factor in determining teacher competency and was commonly discussed in the

reflections. On the other hand, because the teachers employed different methods and teaching styles in open classes, the discussions were not linked to a daily context but functioned as evaluations.

While many teachers perceived "activating students" as important in lesson study, and they could point out whether or not the students were active, their comments remained as impressions and there was no link to the process of learning or explanation and reasons. Mrs Risma said, "At the beginning of the lesson, groups four and five were not working together, especially Rian and Arya as well as Meli and Teana" (she referred to the names of students reading their nametags). Mrs Fima commented, "In the beginning, students were not working together" and "There was a good discussion between Rhma and Ayu". The comments made by the teachers in reflection suggest that the teachers were evaluating the students' involvement rather than interpreting the process of learning. Based on their experiences of lesson study at the university level in Indonesia, Saito, Hawe, Hadiprawiroc, and Empedhe (2008) describe this tendency to provide generalised remarks on the students without concrete evidences as "evaluation-minded".

In the daily setting, the teachers structured lessons in such a way that the relationships between students were competitive rather than cooperative. Some teachers showed reluctance for students to work in groups because they considered working in groups to involve copying answers when students could not solve problems on their own. Although the students helped their friends informally by copying answers and asking questions, they were not used to supporting one another in activities. In the survey, several teachers mentioned that the weakness of lesson study was that it increased the dependency of students and decreased their confidence by allowing them to work in groups. This emphasis on individual responsibility towards one's learning resonates with teachers' reluctance to support students in the process of learning, as was stated previously.

Since classroom management was not linked to pedagogy, and was not a shared interest among teachers, it was often considered to be a personal issue. In the interview, Mrs Risma recalled and commented about Mrs Arum's open class, "If the teacher is good, she can make students quiet. If the teacher is always upset or ignores them even when they are noisy, they keep becoming noisy". Similarly, a mathematics teacher Mrs Hani was criticised by Mr Umar as "The teacher did not have to explain too much or write a conclusion [on the board]. Students can do this by themselves" and by Mrs Fima, "Some students wanted to ask questions of the teacher and the students were not listening because of unclear instruction. The teacher could not correct their behaviour" (Field note, May 30, 2010). These problems in Mrs Hani's lesson were all attributed to the issue of "class management" and there were no productive suggestions. The disciplinary problems or learning difficulties of students were not shared among teachers, but instead were treated as a personal issue.

Collegiality

The teachers in Taman Sari were strongly associated with bureaucratic accountability and not linked with a school-wide goal relating to the development of students. Unlike the Japanese context, the conversations inside the staff room were dominated by personal matters rather than being about students and lessons. Most teachers had never entered other teachers' classrooms before lesson study. The teachers cooperated well for the bureaucratic administration, but were not accustomed to discussing lessons either in formal or informal situations.

Since the introduction of lesson study, MGMPS (school-level subject groups) functioned to ensure its smooth implementation. The lesson plan was usually discussed among the subject teachers and the teachers supported it by carrying out tasks such as making nametags, copying worksheets, and preparing tools and equipment. On the other hand, pedagogic responsibilities were not shared and the teachers were reluctant to discuss lessons even among the subject teachers. A science teacher commented on the difficulty in having an honest discussion in lesson study because "Teachers are afraid to appear *mengurui*, or patronising, especially to the senior teachers" (Field note, May 13, 2010). There was a tendency for younger teachers to be selected to teach open classes while some of the senior teachers had never done it. Some teachers were reluctant to do open lessons for fear of criticism, but were forced to do so in the end because they were assigned to do so by the managers.

While the teachers maintained public harmony under the system of seniority, senior teachers were often criticised privately for being authoritative and not being close to the students (Interview, June 8, June 9, & June 13, 2010). Mr Halim, a science teacher, admitted that the science teachers had an issue with a senior teacher, Mr Joko. "Previously, with Mr Joko, I had difficulty accepting [the comments]. ... he was always patronising. ... I said nothing ... just be quiet, the friends complained 'He always wants to check', but I said 'Just let him be, it's nothing'. In the end Mr Halim resolved it by giving in".

Moreover, younger teachers often complained that the senior teachers were too relaxed and had been teaching in the same way for many years without improvement. There was evidence that younger teachers felt they could be better than senior teachers. Mr Halim recounted a story that Mrs Bella had claimed that those classes taught by Mrs Bella and Mr Halim were doing better than the classes taught by other science teachers, including Mr Joko (Interview, June 8, 2010).

Under these circumstances, the collegiality in Taman Sari did not support sharing issues in lessons or professional development among the teachers. Moreover, as explained previously in this section, the teachers who opened their lessons were criticised for their weaknesses, rather than receiving constructive feedback. While the collegiality of teachers in Taman Sari supported administrative tasks, it was not conducive to open discussions about the teachers' pedagogical practices.

Conclusion

This paper has discussed the sociocultural contexts of daily activities of teachers in an Indonesian junior high school and in Japan, in order to increase an understanding of the recontextualisation of lesson study². Lesson study in the Indonesian school provided the opportunity for teachers to share their lessons with their colleagues, to experiment with new methods and pedagogies, and to discuss lessons. However, there was little evidence that lesson study produced collaborative learning among teachers to share practices linked to daily teaching. While Japanese lesson study promoted an exchange of narratives about pedagogical practices, lesson study in Taman Sari played an instrumental role in assessing activities planned and executed in accordance with a bureaucratic schedule.

Lesson study in Japan promotes an exchange of practices, based on the shared responsibilities of teachers for student learning and improvement of teaching practices because teachers' professionalism is constituted in terms of specific pedagogic skills and the individualising of interactions with

students. The aims of lesson study are thus consistent with this mode of professionalism. However, they are less consistent in Taman Sari.

Since the priorities of Taman Sari teachers rested on responding to bureaucratic accountability and on examination preparation, lesson study worked to formalise open lessons for evaluation according to a bureaucratic requirement. While group work and hands-on activities were incorporated, the teachers employed teacher-centred pedagogy and aimed for performance. While the students were encouraged to participate actively, the teachers did not necessarily feel the benefits of having them work together because of the concern over the potential to increase student dependency, which would work negatively for individual problem solving in examinations. Also, the hierarchical collegiality among the teachers in Taman Sari supported systematic cooperation, but hindered open discussion to share issues in their lessons. Rather, the teachers pursued perfection in lesson design and evaluated the open lesson based on the teacher's adherence to evaluation criteria. Thus, interest in students and pedagogy were not shared among the teachers through lesson study. At Taman Sari, the teachers were bound by the existing sociocultural contexts, of which they may have been unaware, and which lay largely beyond their control and beyond the scope of professional development.

For lesson study to take root in Indonesia, professional responsibilities would need to be shifted away from bureaucratic regulation of the format and content of teaching to placing importance on the embodiment of practices related to student learning. Once teachers are accountable as practitioners for their pedagogic skills and for the students, lesson study has a great potential to develop. Bureaucratic control imposed on Indonesian teachers is already creating a dilemma for those teachers who are eager to extend their professional responsibilities beyond the boundary set by the state. Some teachers have expressed their frustration to their colleagues who were concerned about their career advancement and put more effort into administrative work than meeting the needs of students. Also, younger teachers especially were frustrated by the system of patronage that hinders teachers from having open discussion to share classroom issues. On a positive note, Indonesian teachers do not experience the privatisation of teachers that is found in Japan. They have the potential to support one another beyond the boundary set by their professional responsibilities. Currently there is an initiative to conduct lesson study as an informal and voluntary club activity outside school responsibilities in Indonesia. Further studies on these cases may provide more hints as to how to overcome the bureaucratisation of lesson study and produce meaningful exchanges of practices and discourses on professional development in the future.

Notes

- 1 The original term of craft knowledge comes from Grinnell and MacKinnon (1992): "Craft knowledge represents intelligent and sensible know-how in the action setting" (p. 395).
- 2 For an explanation of recontextualisation as fundamental to the construction of pedagogic practice, refer to Chevallard (1992) and Bernstein (2000). For a general theory of recontextualisation, refer to Dowling (2009; 2013).

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